

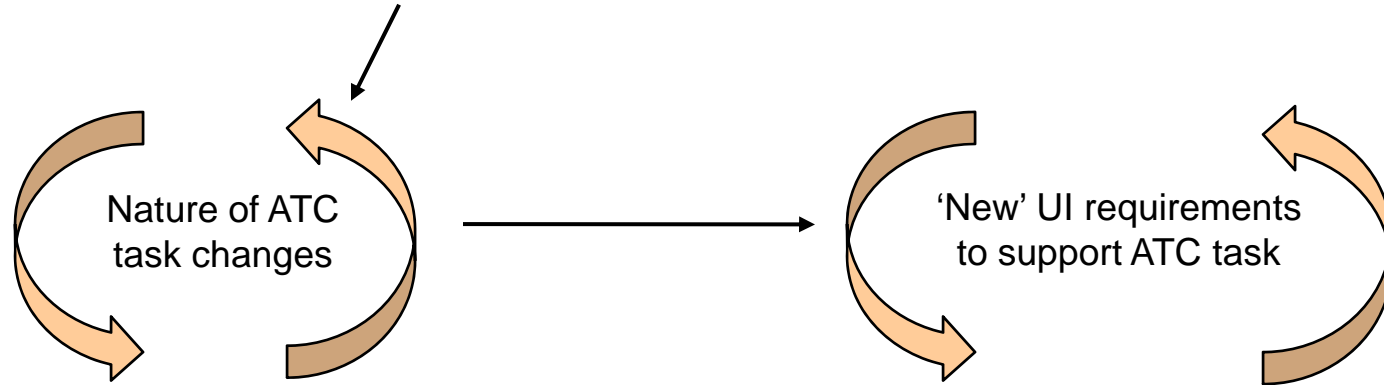
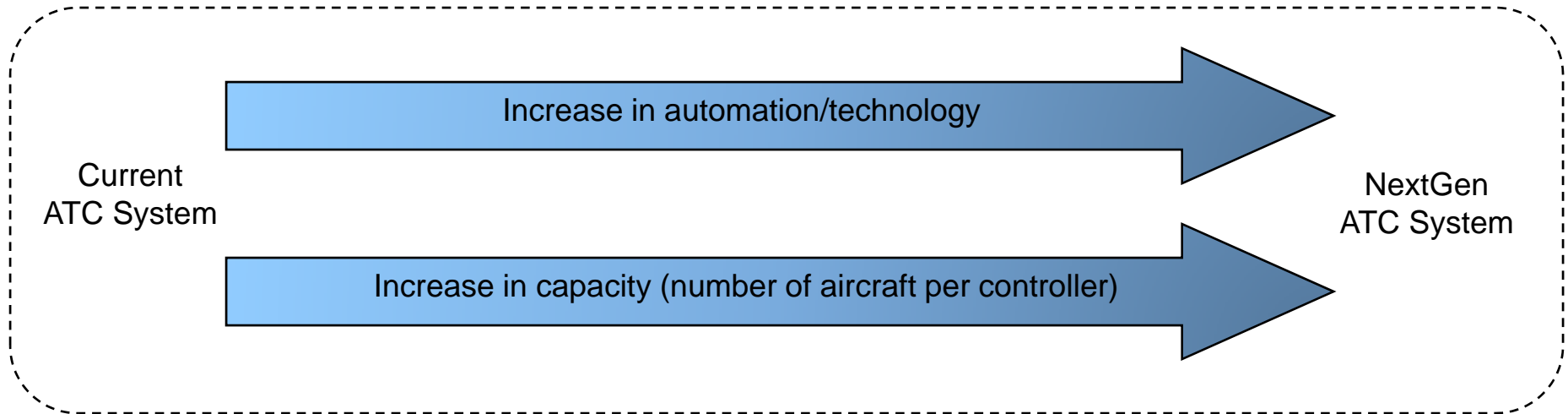
NextGen Terminal ATC Display

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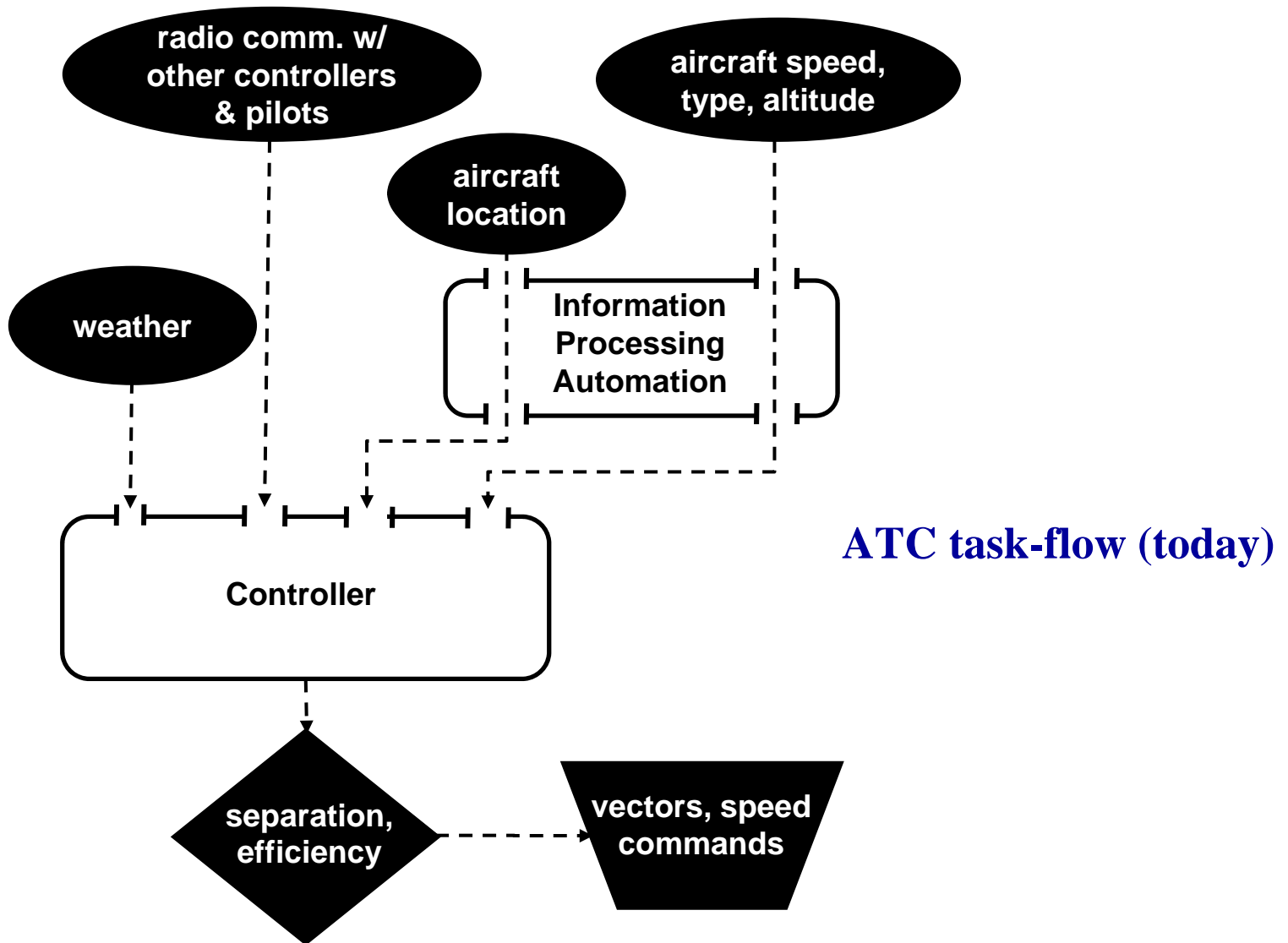
MITRE Sponsored Research (MSR)



Problem

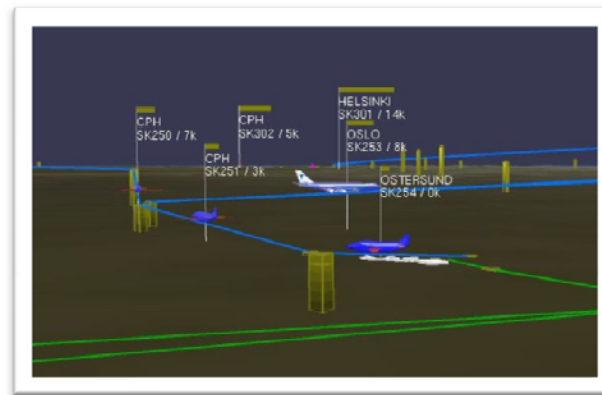


Background



Objective

Develop a prototype of an ATC display that supports high levels of automation (NextGen) and enables a controller to manage increased traffic levels.



Activities

Rapid prototyping

ATC 'serious game'
competition

Principles of
visualization

Graphical user
interface design
guidelines

Working sessions with
former controllers

Human-automation
interaction design
guidelines

Assumptions

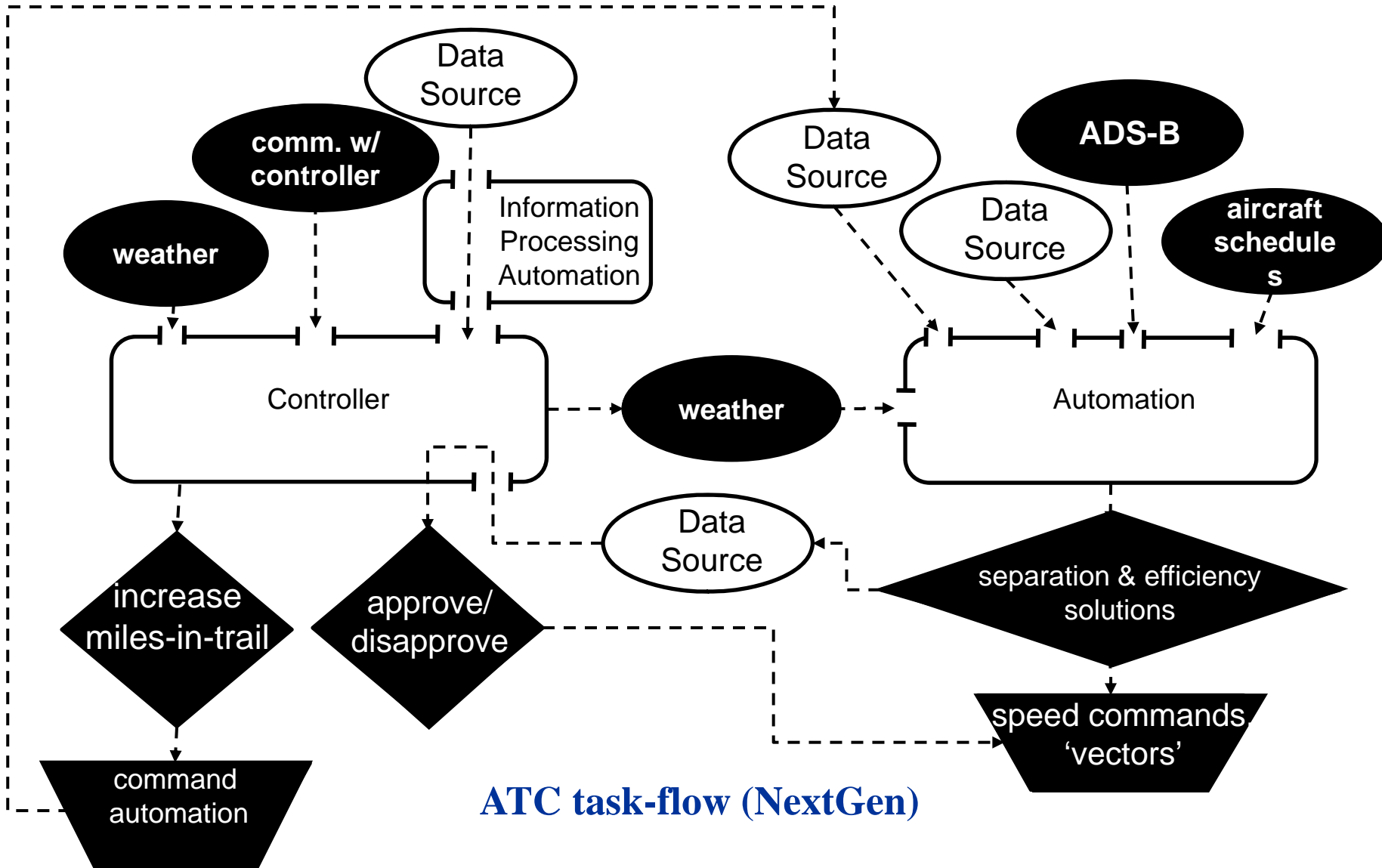
Assumptions

Advanced Terminal
Concept of Operations

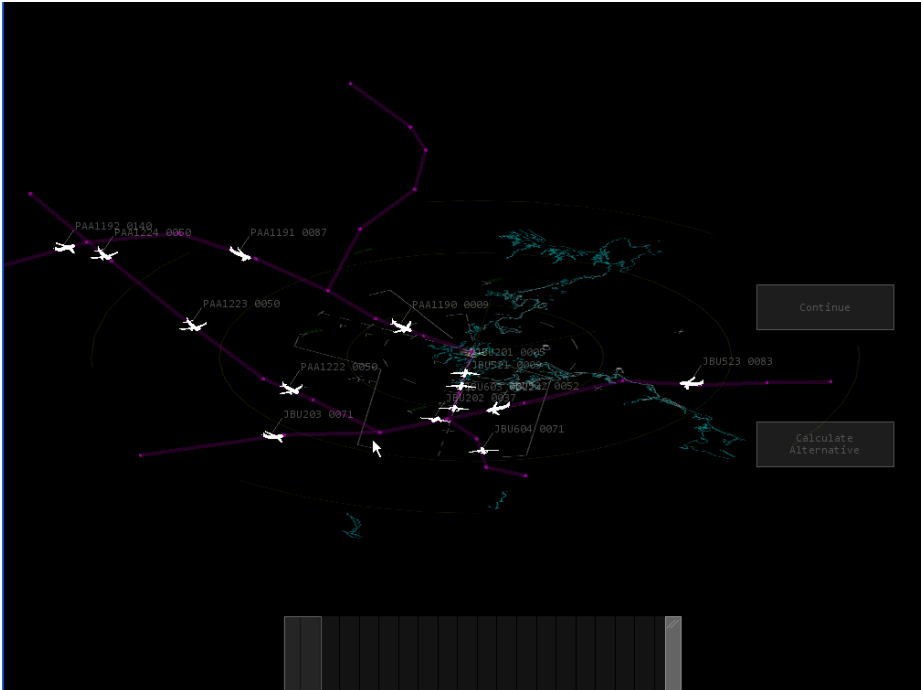
Concept of Use for En
Route Automation

JPDO NextGen
Concept of Operations

Highlight



Demonstration



Secondary Display

Primary Display



Impacts



- **Increased traffic enabled by en-route automation tools mandate new approaches in terminal ATC**
 - **With increased capacity, terminal becomes the bottleneck.**
- **Providing an effective platform for controller-automation collaboration.**
- **The results can help contribute in the definition of the NextGen roadmap.**

Future Plans



- **FY09**
 - **demonstrations to stakeholders and qualitative evaluations**
 - **refinement of GUI and development of additional features.**

- **FY10**
 - **how do we make this concept part of the NextGen conversation?**
 - **what can we do to help the concept travel through the standard technology adoption curve?**
 - **Human-in-the-loop simulation to evaluate objective performance benefits**
 - **community vetting - distributed test environment.**